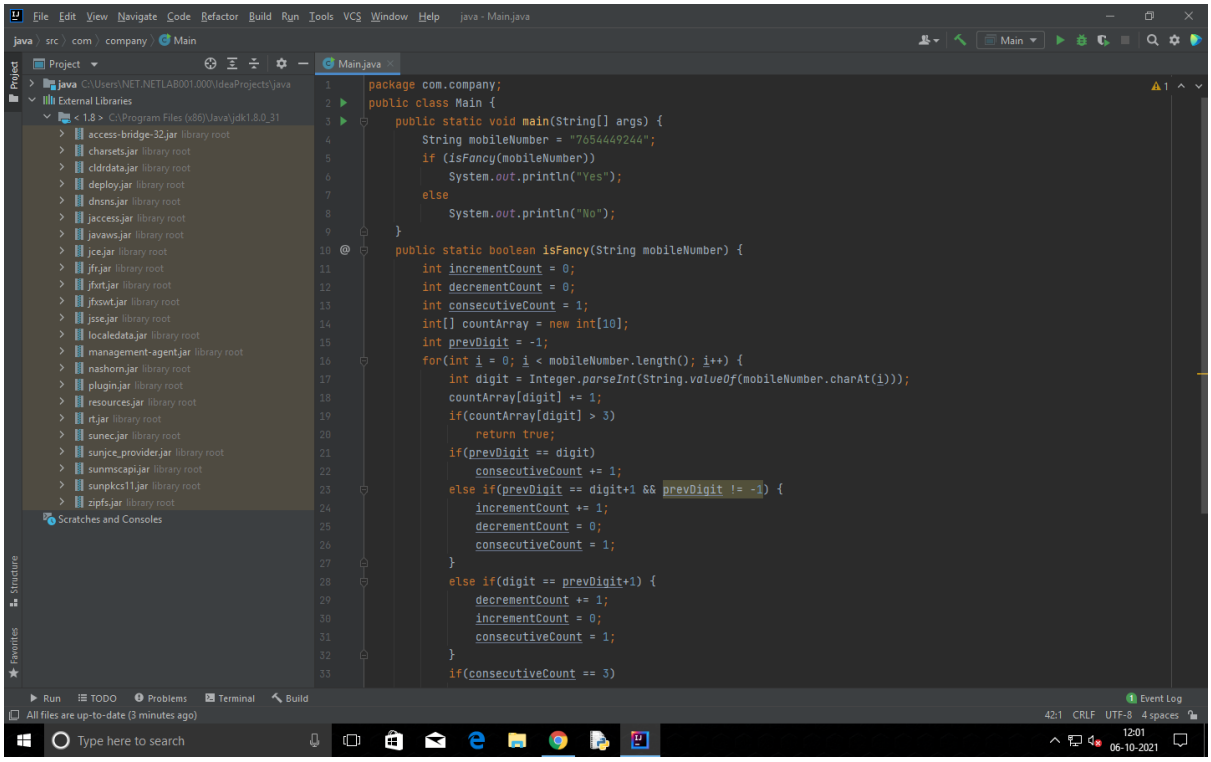
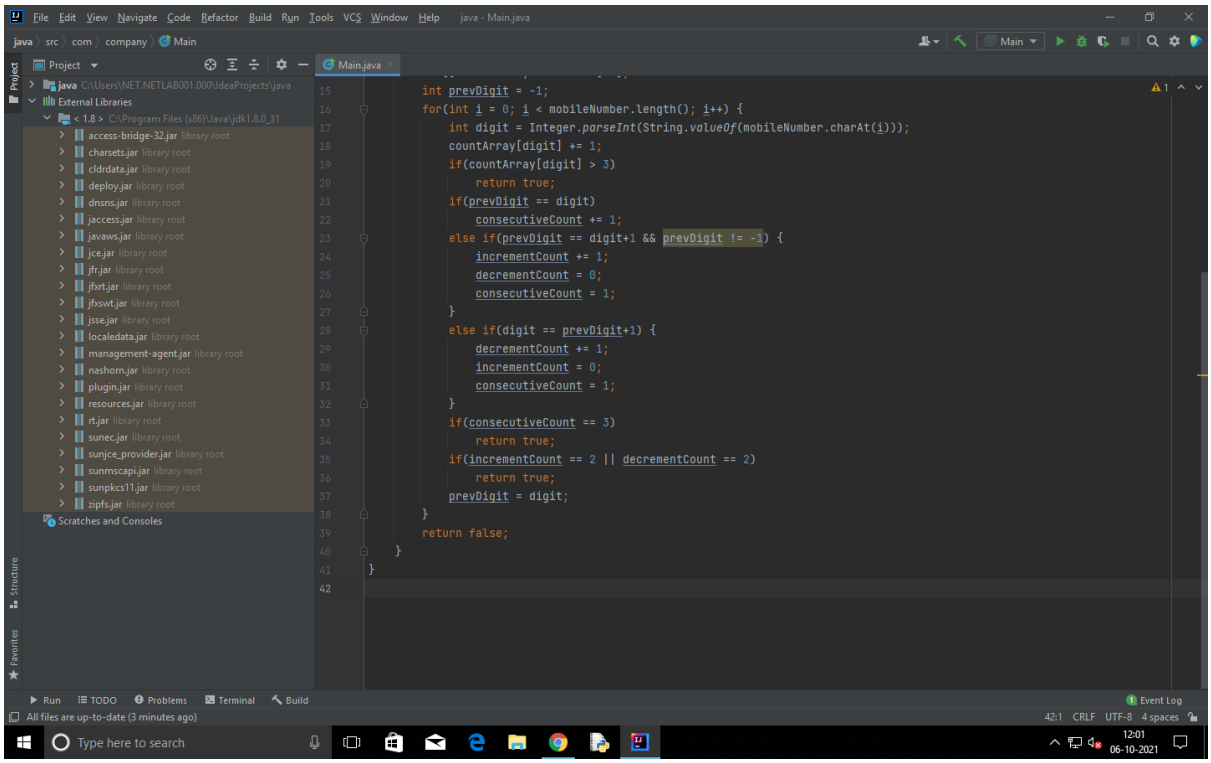
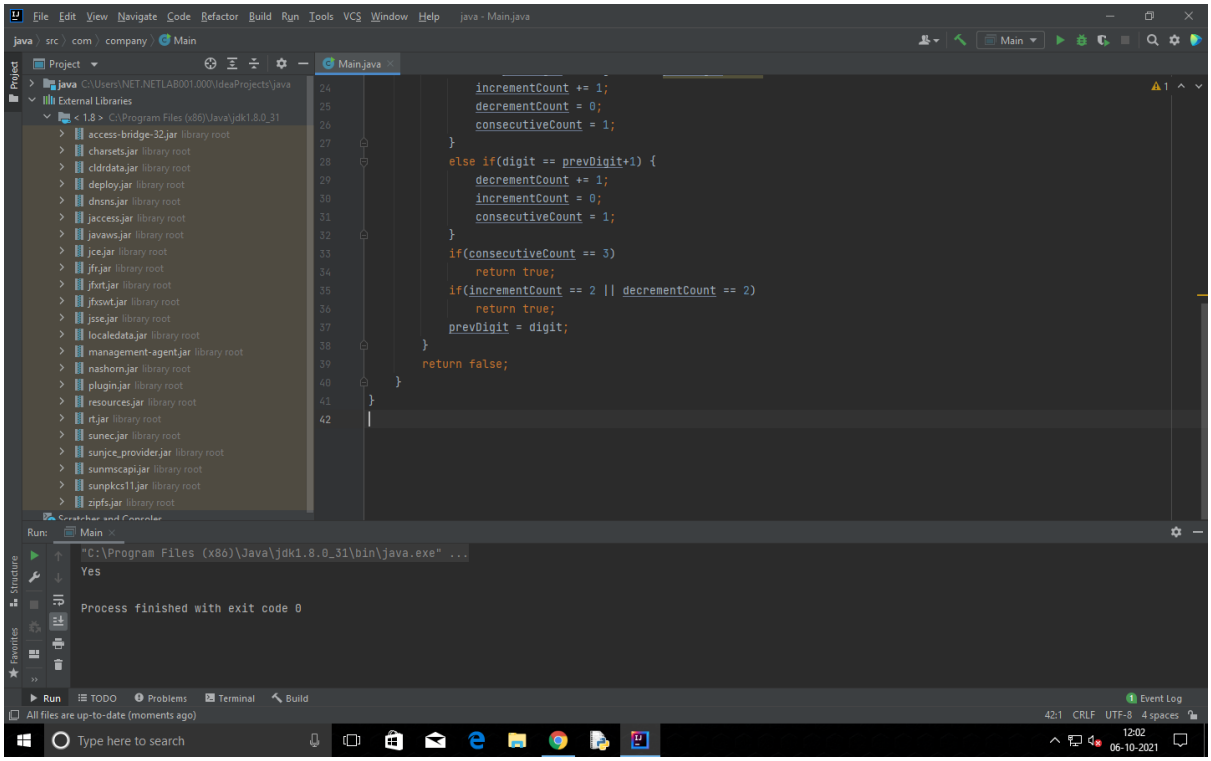
1. Given a mobile number and some conditions for a fancy number, find if the givennumber is fancy. A 10 digit mobile number is called fancy if it satisfies any of thefollowing three conditions.



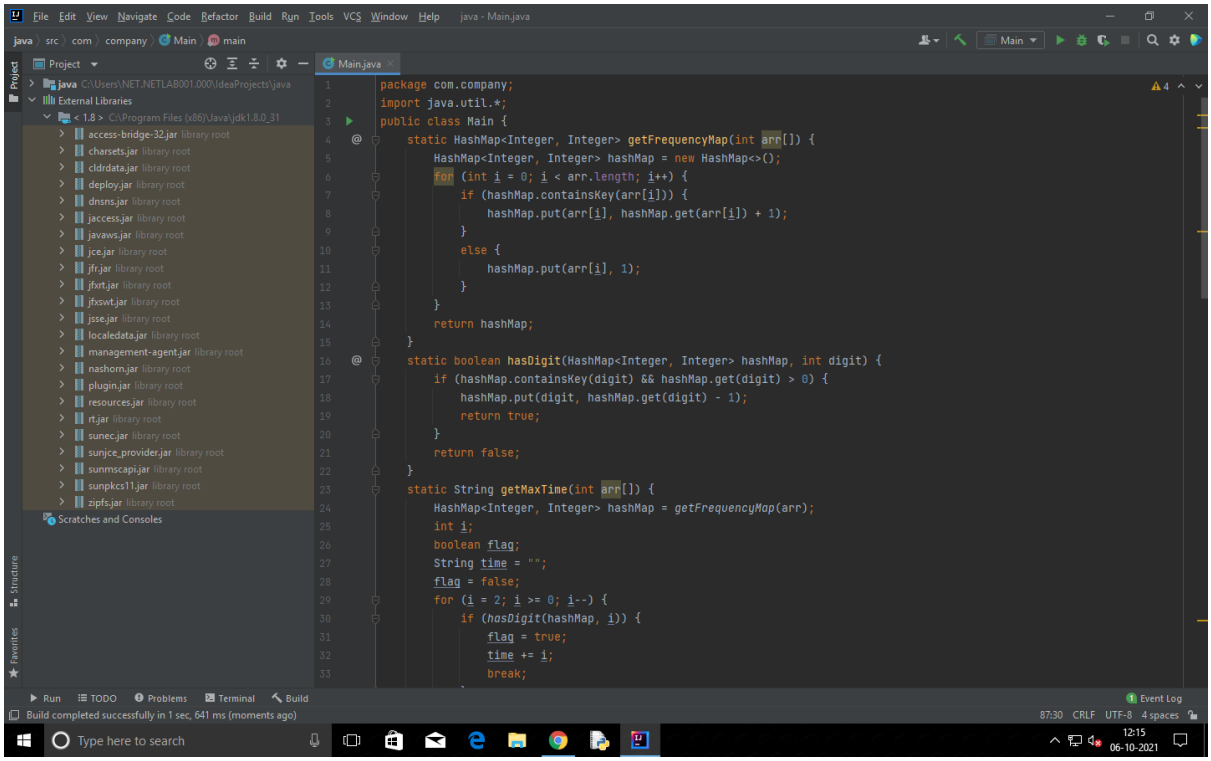
```java
package com.company;
public class Main {
    public static void main(String[] args) {
        String mobileNumber = "7654449244";
        if (isFancy(mobileNumber))
            System.out.println("Yes");
        else
            System.out.println("No");
    }
    public static boolean isFancy(String mobileNumber) {
        int incrementCount = 0;
        int decrementCount = 0;
        int consecutiveCount = 1;
        int[] countArray = new int[10];
        int prevDigit = -1;
        for(int i = 0; i < mobileNumber.length(); i++) {
            int digit = Integer.parseInt(String.valueOf(mobileNumber.charAt(i)));
            countArray[digit] += 1;
            if(countArray[digit] > 3)
                return true;
            if(prevDigit == digit)
                consecutiveCount += 1;
            else if(prevDigit == digit+1 && prevDigit != -1) {
                incrementCount += 1;
                decrementCount = 0;
                consecutiveCount = 1;
            }
            else if(digit == prevDigit+1) {
                decrementCount += 1;
                incrementCount = 0;
                consecutiveCount = 1;
            }
            if(consecutiveCount == 3)
```



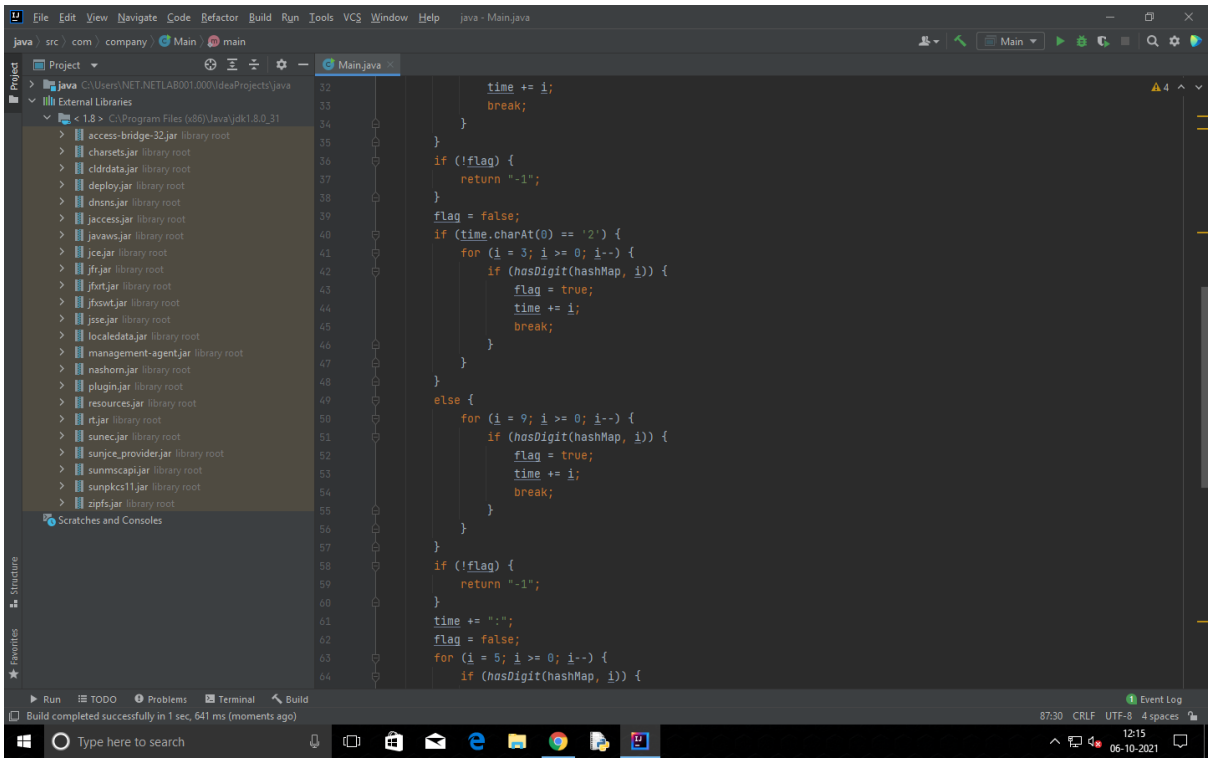
```java
        int prevDigit = -1;
        for(int i = 0; i < mobileNumber.length(); i++) {
            int digit = Integer.parseInt(String.valueOf(mobileNumber.charAt(i)));
            countArray[digit] += 1;
            if(countArray[digit] > 3)
                return true;
            if(prevDigit == digit)
                consecutiveCount += 1;
            else if(prevDigit == digit+1 && prevDigit != -1) {
                incrementCount += 1;
                decrementCount = 0;
                consecutiveCount = 1;
            }
            else if(digit == prevDigit+1) {
                decrementCount += 1;
                incrementCount = 0;
                consecutiveCount = 1;
            }
            if(consecutiveCount == 3)
                return true;
            if(incrementCount == 2 || decrementCount == 2)
                return true;
            prevDigit = digit;
        }
        return false;
    }
}
```



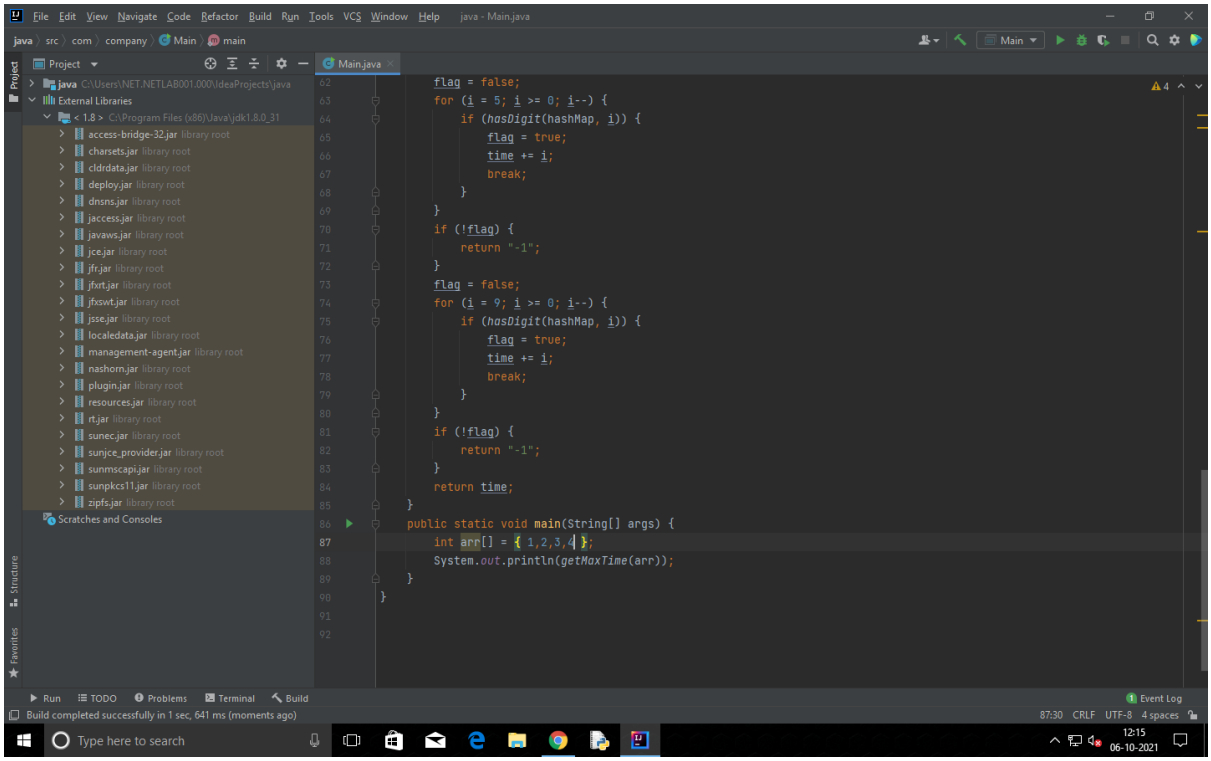
2.Given an array arr[] having 4 integer digits only. The task is to return themaximum 24 hour time that can be formed using the digits from the array.Note that the minimum time in 24 hour format is 00:00, and the maximum is 23:59. Ifa valid time cannot be formed then return -1.

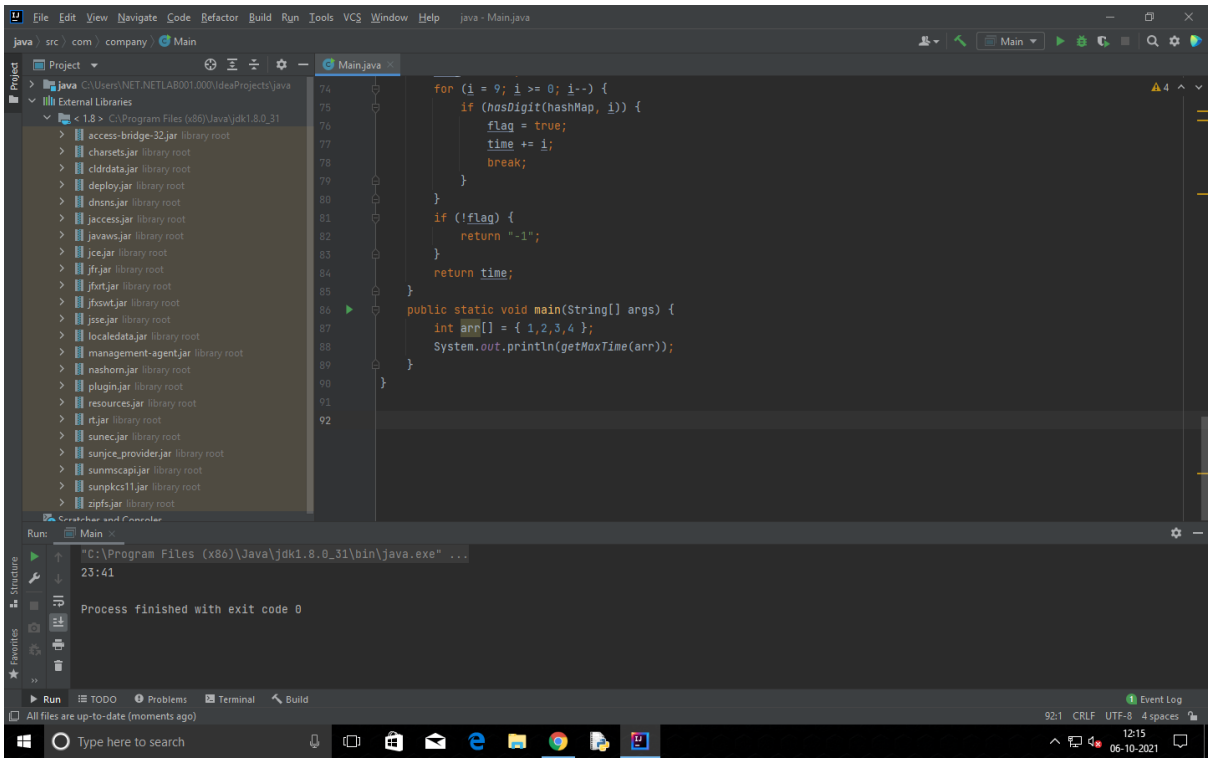


```java
package com.company;
import java.util.*;
public class Main {
    static HashMap<Integer, Integer> getFrequencyMap(int arr[]) {
        HashMap<Integer, Integer> hashMap = new HashMap<>();
        for (int i = 0; i < arr.length; i++) {
            if (hashMap.containsKey(arr[i])) {
                hashMap.put(arr[i], hashMap.get(arr[i]) + 1);
            }
            else {
                hashMap.put(arr[i], 1);
            }
        }
        return hashMap;
    }
    static boolean hasDigit(HashMap<Integer, Integer> hashMap, int digit) {
        if (hashMap.containsKey(digit) && hashMap.get(digit) > 0) {
            hashMap.put(digit, hashMap.get(digit) - 1);
            return true;
        }
        return false;
    }
    static String getMaxTime(int arr[]) {
        HashMap<Integer, Integer> hashMap = getFrequencyMap(arr);
        int i;
        boolean flag;
        String time = "";
        flag = false;
        for (i = 2; i >= 0; i--) {
            if (hasDigit(hashMap, i)) {
                flag = true;
                time += i;
                break;
```



```java
                time += i;
                break;
            }
        }
        if (!flag) {
            return "-1";
        }
        flag = false;
        if (time.charAt(0) == '2') {
            for (i = 3; i >= 0; i--) {
                if (hasDigit(hashMap, i)) {
                    flag = true;
                    time += i;
                    break;
                }
            }
        }
        else {
            for (i = 9; i >= 0; i--) {
                if (hasDigit(hashMap, i)) {
                    flag = true;
                    time += i;
                    break;
                }
            }
        }
        if (!flag) {
            return "-1";
        }
        time += ":";
        flag = false;
        for (i = 5; i >= 0; i--) {
            if (hasDigit(hashMap, i)) {
```


File Edit View Navigate Code Refactor Build Run Tools VCS Window Help
java - Main.java
Main.java
flag = false;
for (i = 5; i >= 0; i--) {
if (hasDigit(hashMap, i)) {
flag = true;
time += i;
break;
}
}
if (!flag) {
return "-1";
}
flag = false;
for (i = 9; i >= 0; i--) {
if (hasDigit(hashMap, i)) {
flag = true;
time += i;
break;
}
}
if (!flag) {
return "-1";
}
return time;
}
public static void main(String[] args) {
int arr[] = { 1,2,3,4 };
System.out.println(getMaxTime(arr));
}
}
Build completed successfully in 1 sec, 641 ms (moments ago)
Type here to search
12:15
06-10-2021


File Edit View Navigate Code Refactor Build Run Tools VCS Window Help
java - Main.java
Main.java
for (i = 9; i >= 0; i--) {
if (hasDigit(hashMap, i)) {
flag = true;
time += i;
break;
}
}
if (!flag) {
return "-1";
}
return time;
}
public static void main(String[] args) {
int arr[] = { 1,2,3,4 };
System.out.println(getMaxTime(arr));
}
}
Run: Main
"C:\Program Files (x86)\Java\jdk1.8.0_31\bin\java.exe" ...
23:41
Process finished with exit code 0
All files are up-to-date (moments ago)
Type here to search
12:15
06-10-2021